

REMARKS

The Official Action of August 26, 2003, and the prior art cited and relied upon therein have been carefully reviewed. The claims in the application are now claims 1-9 and 12-17, and these claims define patentable subject matter warranting their allowance. Accordingly, the applicant respectfully requests favorable reconsideration and allowance.

Acknowledgement by the PTO of the receipt of applicant's papers filed under Section 119 is noted.

New claims 12-17 have been added. Of these, claims 12-14 replace claims 10 and 11, and are presented in Jepson form. Claim 15 adds the feature deleted from claim 1. Claim 16 is a new independent claim similar to independent claim 1, but adding some additional detail. These claims are patentable for the reasons pointed out below. In particular, claims 12-14 depend from and incorporate the subject matter of claim 1, and are therefore patentable for the same reasons as claim 1.

New claim 16 also includes all the features of claim 1, and claims 16 and 17 are patentable for the same reasons as claim 1. Support for additional features in claim 16 are to be found example in the sentence spanning pages 3 and 4; page 7, lines 30-35; page 8, lines 6-10; and page 11, lines 1-4.

Claims 1-8 have been rejected under the second paragraph of §112. The rejection is respectfully traversed.

Applicant agrees that clauses which start out with the words "such as" are inconsistent with U.S. practice. Claim 1 has been appropriately amended, and the subject matter now inserted into claim 15. This amendment is clearly a non-narrowing amendment.

Withdrawal of the rejection is respectfully requested.

Claims 10 and 11 have been held to be unclear and have also been rejected under §101 as being non-statutory. These claims have been deleted without prejudice, and equivalent claims 12-14, in statutory Jepson form, replace these claims.

Claim 9 has been objected to under Rule 75 as being in improper form. The examiner is correct, and consequently claim 9 has been amended above to place it in proper form consistent with U.S. practice. Again, this is a cosmetic and non-narrowing amendment.

Claims 1-8, 10 and 11 have been rejected as obvious under §103 from Preston UK 2 293 583 (Preston) in view of Malpas EP 0 940 277 (Malpas) and Chang 5,973,268 (Chang). This rejection is respectfully traversed.

Preston, entitled "Cargo Net for Vehicles" is certainly the closest prior art. Still, it is importantly different from the present invention.

First, the word "net" in the title implies, and Fig. 2 shows, that the Preston net is a **knitted** fabric and not a woven fabric. It is true that the text of Preston does mention that the "net" is "woven", but this is believed to be sloppy writing which is clearly inconsistent with what is illustrated. Moreover, the provision of a knitted fabric makes much more sense relative to the "cargo net" of Preston because a knitted fabric is more flexible in general than a woven fabric. Because of the use of metal filaments in Preston, which metal filaments tend to stiffen that fabric, it makes sense that Preston teaches a knitted structure as shown in Fig. 2.

The distinction of a woven textile, as claimed, over a knitted textile is highly important for a number of reasons. Thus, in a woven textile as claimed, there are parallel warp yarns and parallel weft yarns whereby it is possible to define a mesh cell of rectangular (preferably square) configuration.¹ To the contrary, with a knitted fabric as in Preston, it is quite difficult (if not impossible) to define such a cell.

¹ A brochure showing and including samples of applicant's commercial embodiments is attached.

In the present invention, the metallic wires are woven in parallel with synthetic wires. The distance between metal fibers may therefore be more precisely defined. To the contrary, in a knitted fabric it is very difficult (if indeed possible) to keep constant distances between successive wires.

This distinction provides yet another advantage. Thus, with the claimed woven fabric (as opposed to Preston's knitted fabric) it is easy to make a serial connection between some of the wires, i.e. the structure of the present invention allows one to choose the wires which can be connected to one another for electrical purposes, whereas the woven network of Preston does not permit such a selection, but instead the wires are quite continuous. As a result of this distinction, those embodiments of the present invention, wherein an electrical connection is provided, permit the detection of any cut in the circuit made of the serially connected wires. In Preston, to the contrary, a cut through the product provides a shock, but does not make it possible to detect where the cut has occurred.

Regardless, there are other important differences. Thus, Preston discloses basically two types of embodiments, namely (1) embodiments wherein the metal fibers are uncoated whereby the thief immediately becomes shocked when he touches the net (top paragraph on page 2), and (2) coated embodiments

as especially disclosed in the second through fourth paragraphs on page 3, wherein the thief is not shocked until he attempts to cut into the cargo net.

The first embodiments are of course totally inconsistent with the present invention. In these embodiments of Preston, the metallic wires must not be sheathed as presently claimed, because a sheathing would isolate those wires and prevent any electrical shock.

As regards Preston's embodiments wherein the network of filaments is located between sheets of polyvinyl chloride or the like, such constructions basically comply with acknowledged prior art described in applicant's specification in the paragraph spanning pages 1 and 2 as follows:

It has also been proposed to produce truck tarpaulins by coating a textile either entirely of metal cables or incorporating metal cables woven with other synthetic cables. These solutions also have many drawbacks. This is because when the textile is composed both in the warp direction and in the weft direction of cables strong enough and sufficiently closely meshed to withstand laceration, the weave has a very considerable relief [i.e. it is quite thick], which necessarily means that a large amount of coating has to be deposited on each side of the metal textile in order, at the very least, to cover the top of the yarns. Such a coated textile is very heavy and practically impossible to handle during operations to cover the truck with the tarpaulin, especially in cold weather. It is also relatively complicated to cut and to make up. (bracketed material added)

In these embodiments, regardless of whether the Preston net is woven or knitted, flexibility is lost because the polyvinyl chloride (PVC) sheets inhibit flexibility; and, as stated in applicant's specification as quoted above, the product becomes very heavy, a serious problem for a tarpaulin in particular.

Contrary to Preston, applicant's woven fabric is flexible, open and lightweight, e.g. see the attached samples. The fibers, yarns or "cables" are simply sheathed, and there are large open spaces.

The PTO recognizes deficiencies in Preston, including (1) the claimed spacing of the warp and weft cables, and (2) the coating of the fibers and metal wires, as well as (3) providing the coatings in different colors. These are three important distinctions.

As regards the first distinction, the PTO relies on no prior art but simply states that it is "obvious" to do what applicant has done, without presenting any evidence in support of such a contention. This is like "official notice", which applicant cannot accept. If any prior art exists, applicant should have the right to face and rebut such prior art.

Applicant respectfully notes that the burden is initially on the PTO to establish a *prima facie* case of obviousness. With respect, it is not sufficient to simply state that "it would have been obvious... to have optimized the

spacing of the threads" when there is no evidence whatsoever in support of such a conclusion. Applicant respectfully relies on *Ex parte Levengood*, 28 USPQ2d 1300, 1301-1302 (BPAI 1993) :

In order to establish a *prima facie* case of obviousness, it is necessary for the examiner to present **evidence**, preferably in the form of some teaching, suggestion, incentive or inference in the applied prior art, or in the form of generally available knowledge, that one having ordinary skill in the art **would have been led** to arrive at the claimed invention. [Citations omitted; italics in original].

Where is the evidence to support the conclusion of "obviousness"?

At best, the examiner's comments regarding obviousness amount to an assertion that one of ordinary skill in the relevant art would have been able to arrive at appellant's invention because he had the necessary skills.... This is an inappropriate standard for obviousness. [Citations omitted] That which is within the capabilities of one skilled in the art is not synonymous with obviousness [Citations Omitted].

There is no basis for the conclusion in the rejection of the obviousness of features which are not shown in the prior art.

Applicant understands the expression "it would have been obvious" to the person skilled in the art to mean that what the applicant did is, in the examiner's view, a mere matter of choice which could be done by any person skilled in

the art (if he or she wanted to do so). But see *Ex parte Haas et al*, 144 USPQ 98, 99:

The Examiner ... says that [applicants' changes] are a matter of choice. It is not a matter of choice presented by the prior art [which] gives only one choice; a process which will not yield these new and improved results.

Also see *Ex parte Deere*, 118 USPQ 541, 544; and *Ex parte Krantz*, 61 USPQ 238.

In an unpublished decision (September 30, 1986) in Appeal 580-81, the Board, in reversing a rejection in a case where the examiner had brushed aside a recitation appearing in the claim under appeal, concluded as follows:

The examiner's assertion at page 4 of the Answer that the proposed modification would have been "an obvious matter of engineering design choice well within the level of one of ordinary skill in the art" is a conclusion, rather than a reason.

Applicant respectfully submits that it is contrary to fact in the present case that providing applicant's fabric having the claimed feature would require nothing more than an obvious modification; it is also contrary to the well established case law, including that cited above, which requires the prior art to show that alternatives are equivalent (see *In re Scott*, 139 USPQ 297; and *In re Flint*, 141 USPQ 299) before the PTO can validly hold that doing one in place of the other would simply

have been obvious. There is no such prior art of record in the present case.

Lastly, for more recent decisions on this point, attention is respectfully invited to *In re Chu*, 36 USPQ2d 1089, 1095 (Fed Cir 1995); and *In re Rijckaert*, 28 USPQ2d 1955, 1957 (Fed Cir 1993).

In short, applicant respectfully submits that he cannot accept what effectively amounts to "official notice" that the spacing as claimed would have been obvious. The spacing of the metal fibers is important in the present invention, as metal fibers tend to make the textile stiff, to reduce stiffness and impart sufficient flexibility (again, please see the attached samples, the metal fibers or "cables", the gray ones in the beige samples, are spaced sufficiently far apart, yet close enough together so that the spacing does not exceed 80mm.) Applicant's textile is not only open and lightweight as a result of the spacing of the strands (and also by virtue of the presence of a greater number of non-metallic strands as called for in new claim 16), but is also flatter.

As regards the second distinction, the PTO relies on Malpas as a secondary reference. However, if one were to modify Preston in view of Malpas, one would not obtain the claimed subject matter.

If one follows the teaching of Malpas, one must make the textile of fabric with a flexible, weather-resistant covering, preferably a thermoplastic polymer (e.g. PVC) layer. As the rejection states, the coating provided by Malpas "may be such that it penetrates the interstices between the warp and weft fibers." To provide such penetration and at the same time obtain a weather-resistant product, the fabric of Malpas must be tight and not an open fabric as per the fabric of the present invention. Certainly, after coating Malpas provides a closed rather than an open-weave fabric as claimed.

Attention is particularly invited to paragraph 0012 of Malpas which states in part as follows:

The plastics material is preferably present on both faces of the textile fabric. A preferred form of coating material is a layer of PVC formed in situ on the metal-reinforced textile fabric by applying to one or both faces of that fabric a PVC plastisol.... ..application of the plastisol to one face of the textile fabric results in it penetrating the fabric and thereby providing a coherent coating on both sides of the fabric. [Such coating] should result in the plastics material becoming firmly bonded to the textile material, for example, by penetrating the interstices (or at least some of the interstices) between the filaments of the textile fabric.

This results in the essential weather-proof coating required by Malpas. This would be fully consistent with the above described second embodiments of Preston, but inconsistent with the first embodiments of Preston described above.

Modification of the second embodiments of Preston in view of Malpas would not produce applicant's open weave construction.

Moreover, Malpas clearly teaches providing the coating after formation of the woven product. This is clearly different from providing a woven product of previously sheathed yarns or fibers, as is the case in the present invention. This distinction is important for the reasons pointed out above, including maintenance of an open weave and a lightweight product.

Applicant respectfully notes that in order to reinforce existing tarpaulins, it is important that the reinforcement layer not be too heavy or rigid, which is the inevitable result in the case of Malpas. The present invention reduces the surface density of the reinforcement by the open spaces.

As regards the third aforementioned distinction, the PTO has relied on Cheng. However, Cheng does not even disclose a fabric, but instead shows different coloration of three independent wires connected in parallel. Cheng does not disclose a fabric in which different warp or weft yarns, i.e. metallic and synthetic yarns, are sheathed with different colored materials.

Applicant respectfully notes that Malpas and Cheng are inconsistent. It is not possible to provide a plastic


coating as taught by Malpas, and provide individual colors for different strands as per Cheng. Providing a plastic coating as per Malpas does not permit for individualization of colors for different strands. Malpas and Cheng are incompatible, and could not have been obviously combined.

With respect, Cheng is totally unrelated to the present art, is even inconsistent with Malpas, and would not have been obviously combined with either Malpas or Preston. Applicant respectfully requests withdrawal of the rejection.

Applicant respectfully requests favorable reconsideration and allowance.

Respectfully submitted,

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